

Work Order ID 93180***93180***

Page 1

November-15-12 9:02:25 AM

Item ID: D2939-2

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Saddle RH In, 206

Stop

NS2

Start Date: 11/15/12 Start Qty: 6.00

6

Cust Item ID:

Required Date: 11/30/12 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan: M-LJ

Date: 12-11-12 Tooling:

Date:

Run Start

NR1

QC:

Date: SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
100 *100* HAAS 1	HAAS CNC VERTICAL MACHINING #1	0.00	P0	13/01/09	6	Ø			
HAAS CNC vertical machine #1	Memo	0.00							
Program part number and batch number. 1-Inspect part number and batch number are programmed correctly. 2-Machine Step No 1 of Folio and visually inspect as per dwg D2939 & attached Dimension Sheet 3-Machine Step No 2 of Folio and visually inspect as per									
110 *110* Mill Conv	CONVENTIONAL MILLING MACHINE	0.00	P0	13/01/09	6	Ø			
Conventional Milling Machine	Memo	0.00							
	Machine Keyway and inspect per attached dimension sheet								
120 *120* QC	QC1- Inspect dimensions to dimension sheet	0.00	P0	13/01/09	6	Ø			
Quality Control	Memo	0.00							

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS					
			<input type="checkbox"/> Rework	<input type="checkbox"/> Skid-tube	<input type="checkbox"/> Crosstube	<input type="checkbox"/> Water Jet	<input type="checkbox"/> Engineering			
			<input type="checkbox"/> Scrap	<input type="checkbox"/> Machining	<input type="checkbox"/> Small Fab	<input type="checkbox"/> Prod. Eng. Coor.	<input type="checkbox"/> Quality			
			<input type="checkbox"/> Use-as-is	<input type="checkbox"/> Thermoforming	<input type="checkbox"/> Finishing	<input type="checkbox"/> Rec/Store/Packaging	<input type="checkbox"/> Other			
			<input type="checkbox"/> Work Order Update	<input type="checkbox"/> Large Fab	<input type="checkbox"/> Composite	<input type="checkbox"/> Supplier				
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										
FAULT CATEGORY										
Landing Gear	General									
	<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain	<input type="checkbox"/> Ovalized	<input type="checkbox"/> Pressure/Forced					
	<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Temperature/Cure					
	<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Weld					
	<input type="checkbox"/> Crushed/Crimped.	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Wrong Stock Pulled					
	<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Part Moved						
	<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Positioned Wrong						
	<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread	<input type="checkbox"/> Power Loss/Surge						
	<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset							
	<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration							
	<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence							
	<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions							

NCR: Yes / No

DQA: Date:

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework Scrap Use-as-is Work Order Update	Skid-tube Machining Thermoforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier	Engineering Quality Other			
Part No. _____											
NCR No. _____											
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
Bending	General			Bend	Grain			Ovalized	Pressure/Forced		
Centre Not Concentric to O/S				BOM/Route	Hardware			Over/Under tolerance	Temperature/Cure		
Cracks				Broken/Damaged	Inspection Incomplete			Part Incorrect	Weld		
Crushed/Crimped.				Burrs	Instructions Incomplete/Unclear			Part Lost/Missing	Wrong Stock Pulled		
Cuffs				Contamination	Maintenance			Part Moved			
Heat Treat				Countersink	Mislabeled			Positioned Wrong			
Inspection Strip in Tube				Cut Too Short	Misread			Power Loss/Surge			
Ripples in Bend				Drill Holes	Offset						
Torque Waves in Extrusion				Drawing	Out of Calibration						
Turning Sequence				Finish	Out of Sequence						
Wave/Twist in Tube				Folio	Outside Dimensions						

Work Order ID 93180

93180

Page 3

November-15-12 9:02:25 AM

Item ID: D2939-2

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Saddle RH In, 206

Stop

NS2

Start Date: 11/15/12 Start Qty: 6.00

6

Cust Item ID:

Required Date: 11/30/12 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

160

QC

Quality Control

QC3- Inspect Part Finish

0.00

6x d M13/01/15

170

170

Packaging

Packaging

Identify as per dwg & Stock Location:

81428

0.00

Memo

0.00

6 SP
13-01-15

180

180

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

MLJ 13-01-15

PL 13-01-15

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										
FAULT CATEGORY										
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions						
				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Other						

Picklist Print

November-15-12 9:02:24 AM

Page 1

Work Order ID: 93180

Parent Item: D2939-2

Parent Item Name: Saddle RH In, 206

Start Date: 11/15/12

Required Date: 11/30/12

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP: B 00.06.26 New DWG rev (mpp 2069)EC
IPP Rev:C As per Rev C 07-03-19 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-001 Saddle Billet		Manufactured	No			100	Each	17.0000	1	6		PD 13/01/08	

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
MAT040	16	
69677	2	
76836	1	
81923	1	
92595	12	
MAT042	1	
83309	1	

91236

6

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										
FAULT CATEGORY										
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions						
				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Other						

DART AEROSPACE LTD	Work Order:	93180
Description: 206 Saddle, Inboard, Right side	Part Number:	D2939-2
Inspection Dwg: D2939 Rev: C DSK: Rev:		Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

First Article Prototype

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				1	2	3	4	5
A	0.100	0.140		.113	.113	.115	.117	.115
B	0.100	0.140		.116	.115	.118	.118	.115
C	0.100	0.140		.113	.110	.113	.115	.114
D	0.210	0.230		.222	.221	.222	.221	.221
E	1.245	1.255	1.250	1.250	1.250	1.250	1.250	1.250
F	1.245	1.255	1.250	1.250	1.250	1.250	1.250	1.250
G	2.495	2.505	2.500	2.500	2.500	2.500	2.500	2.500
H	0.510	0.515	.513	.513	.513	.513	.514	.514
I	1.572	1.582	1.577	1.577	1.577	1.577	1.577	1.577
J	2.495	2.505	2.500	2.500	2.500	2.500	2.500	2.500
K	0.257	0.262	.258	.258	.258	.258	.258	.258
L	0.312	0.317	.314	.314	.314	.314	.314	.314
M	0.235	0.240	.237	.237	.237	.237	.237	.237
N	0.100	0.140	.120	.120	.120	.120	.119	.119
O	0.540	0.560	.550	.548	.548	.548	.550	.550
P	0.490	0.510	.500	.498	.499	.499	.499	.499
Q	3.715	3.725	3.720	3.720	3.720	3.720	3.720	3.720
R	2.720	2.760	2.737	2.737	2.737	2.737	2.737	2.737
S	0.240	0.270	.252	.251	.252	.254	.253	.253
T	0.100	0.180	.135	.135	.135	.135	.135	.135
U	1.625	1.635	1.630	1.630	1.630	1.630	1.630	1.630
V	1.362	1.372	1.367	1.367	1.367	1.367	1.367	1.367
W	0.316	0.321	.316	.316	.316	.316	.316	.316
X	1.250	1.270	1.258	1.258	1.260	1.256	1.256	1.256
Y	1.565	1.585	1.576	1.576	1.579	1.574	1.574	1.574
Z	0.178	0.198	.188	.188	.188	.188	.188	.188
AA								
AB								
AC								
AD								

Accept/Reject

Measured by: PD

Date: 13/01/08

Audited by: DAS

Date: 13/01/09

Prototype Approval:

9-08 N/A

Date: N/A

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.12.12	Re-format; Added Dim. X-Y, DT8683, DT8686, DT8690 & DT8695 A/B	KJ/RF	
C	07.03.21	Revised per drawing revision C	KJ/JLM	
D	07.11.23	DT8695 A/B removed	KJ/EC/DD	<u>PD</u>

DART AEROSPACE LTD	Work Order:	93180
Description: 206 Saddle, Inboard, Right side	Part Number:	D2939-2
Inspection Dwg: D2939 Rev: C DSK: Rev:		Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

First Article Prototype

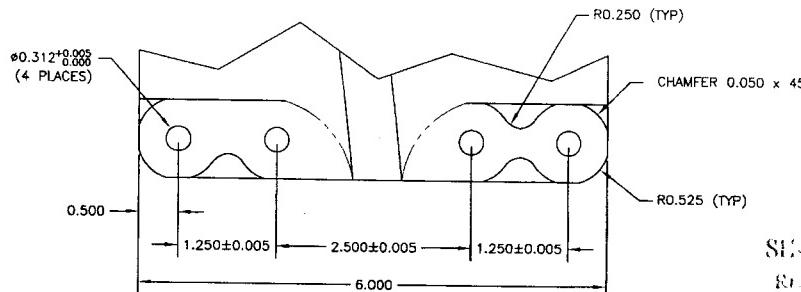
Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				1	2	3	4	5
A	0.100	0.140		.115				
B	0.100	0.140		.115				
C	0.100	0.140		.114				
D	0.210	0.230		.220				
E	1.245	1.255		1.250				
F	1.245	1.255		1.250				
G	2.495	2.505		2.500				
H	0.510	0.515		.514				
I	1.572	1.582		1.577				
J	2.495	2.505		2.500				
K	0.257	0.262		.258				
L	0.312	0.317		.314				
M	0.235	0.240		.237				
N	0.100	0.140		.119				
O	0.540	0.560		.549				
P	0.490	0.510		.500				
Q	3.715	3.725		3.720				
R	2.720	2.760		2.737				
S	0.240	0.270		.255				
T	0.100	0.180		.135				
U	1.625	1.635		1.630				
V	1.362	1.372		1.367				
W	0.316	0.321		.316				
X	1.250	1.270		1.259				
Y	1.565	1.585		1.577				
Z	0.178	0.198		.188				
AA								
AB								
AC								
AD								
Accept/Reject								

Measured by: QD Date: 13/01/09

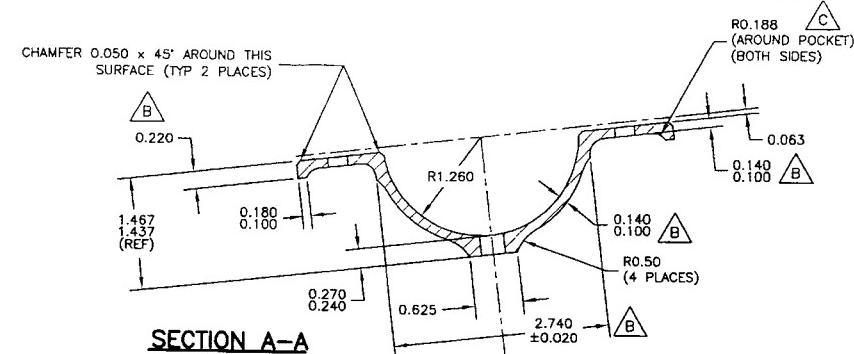
Audited by: J.A Date: 13/01/09

Prototype Approval: N/A Date: N/A

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.12.12	Re-format; Added Dim. X-Y, DT8683, DT8686, DT8690 & DT8695 A/B	KJ/RF	
C	07.03.21	Revised per drawing revision C	KJ/JLM	
D	07.11.23	DT8695 A/B removed	KJ/EC/DD	

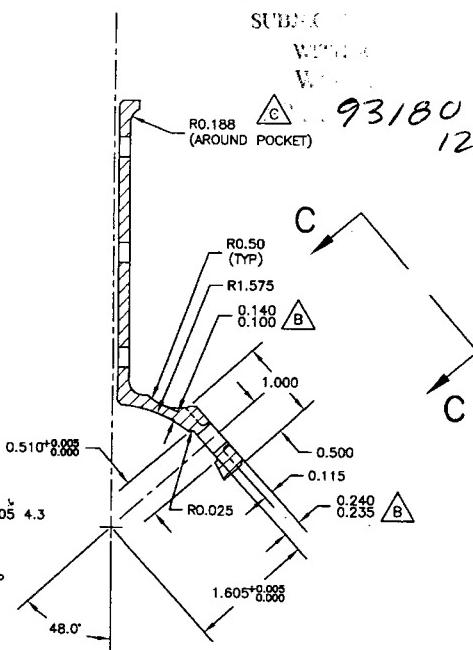


VIEW C-C

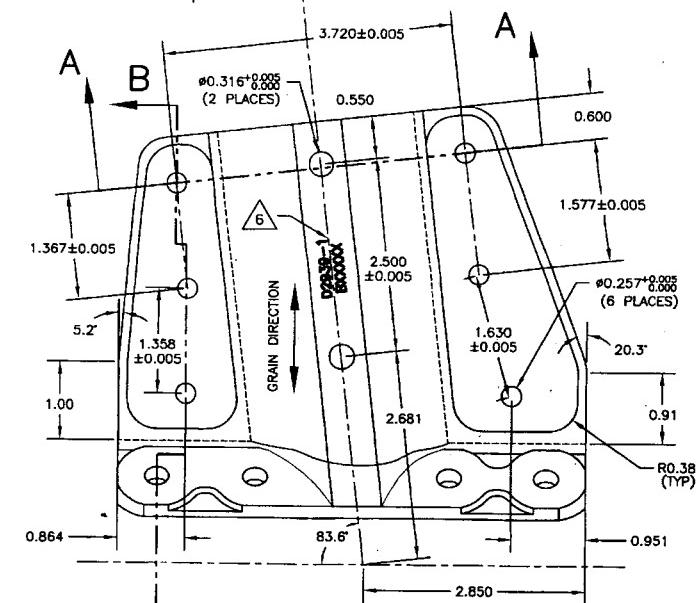


SECTION A-A

D2939-1 LH SADDLE (SHOWN)
D2939-2 RH SADDLE (OPPOSITE)



SECTION B-B



C	06.11.09	R0.188 WAS R0.30 TO R0.25
B	00.05.29	CHANGED DEOMETRY AND MATERIAL
A	99.11.12	NEW ISSUE

DESIGN	DRAWN BY	DART AEROSPACE USA, INC. BELLEVUE, WA
PH	CB	
CHECKED PH	APPROVED DA	DRAWING NO. D2939
DATE 06.11.09		REV. C SHEET 1 OF 1 SCALE 2:3
		TITLE SADDLE INSIDE

COPYRIGHT © 1998 BY DART AEROSPACE USA, INC.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL
AND IS SUPPLIED ON THE EXPRESS CONDITION
THAT IT IS NOT TO BE USED FOR ANY PURPOSE
OR COPIED OR COMMUNICATED TO ANY OTHER
PERSON WITHOUT WRITTEN PERMISSION FROM
DART AEROSPACE USA, INC.

07-02-12
PH